

This listing of claims will replace all prior versions and listings of claims in the present application.

Listing of Claims

1. (Cancelled) An LED light apparatus for producing a collinear beam of white or colored light comprising:
a housing;
at least three sets of LED light assemblies contained within said housing, wherein each of said sets of LED light assemblies is comprised of a plurality of LED lights, said LED lights being arranged in a geometric pattern, and wherein said LED lights contained within each of said sets of LED light assemblies are of the same color, said LED lights being of different colors between said sets of LED light assemblies;
a dichroic bandpass filter located between said sets of LED light assemblies;
a dichroic notch filter located between said sets of LED light assemblies intersecting said dichroic bandpass filter;
a power driver connected to each of said sets of LED light assemblies; and
a microcontroller connected to said power driver.
2. (Cancelled) The LED light apparatus for producing a collinear beam of white or colored light of Claim 1 wherein said at least three sets of LED light assemblies contain LED lights of blue, red, and green forming blue LED light assembly, red LED light assembly, and green LED light assembly.
3. (Cancelled) The LED light apparatus for producing a collinear beam of white or colored light of Claim 1 wherein the perimeter of said housing comprises a plurality of heat sinks to dissipate heat from said LED light apparatus.

4. (Cancelled) The LED light apparatus for producing a collinear beam of white or colored light of Claim 2 wherein said housing incorporates a light emission screen for emitting the produced collinear beam of white or colored light.

5. (Cancelled) The LED light apparatus for producing a collinear beam of white or colored light of Claim 4 wherein said blue LED light assembly is arranged at right angles to said red LED light assembly.

6. (Currently amended) An LED light apparatus for producing a collinear beam of white or colored light comprising:

a housing, wherein said housing incorporates a light emission screen for emitting the produced collinear beam of white or colored light;

at least three sets of LED light assemblies contained within said housing, wherein each of said sets of LED light assemblies is comprised of a plurality of LED lights, said LED lights being arranged in a geometric pattern, and wherein said LED lights contained within each of said sets of LED light assemblies are of the same color, said LED lights being of different colors between said sets of LED light assemblies and wherein said at least three sets of LED light assemblies contain LED lights of blue, red, and green forming blue LED light assembly, red LED light assembly, and green LED light assembly, and wherein said blue LED light assembly is arranged at right angles to said red LED light assembly and said green LED light assembly is arranged at right angles to said red LED light assembly;

a dichroic bandpass filter located between said sets of LED light assemblies;

a dichroic notch filter located between said sets of LED light assemblies intersecting said dichroic bandpass filter;

a power driver connected to each of said sets of LED light assemblies; and

a microcontroller connected to said power driver.

[The LED light apparatus for producing a collinear beam of white or colored light of Claim 5 wherein said green LED light assembly is arranged at right angles to said red LED light assembly.]

7. (Original) The LED light apparatus for producing a collinear beam of white or colored light of Claim 6 wherein said dichroic bandpass filter is at a 90 degree angle with said dichroic notch filter.

8. (Original) The LED light apparatus for producing a collinear beam of white or colored light of Claim 7 wherein said green LED light assembly and said blue LED light assembly are placed on opposing sides of each other.

9. (Currently amended) An LED light apparatus for producing a collinear beam of white or colored light comprising:

a housing;

at least three sets of LED light assemblies contained within said housing, wherein each of said sets of LED light assemblies is comprised of a plurality of LED lights, said LED lights being arranged in a geometric a x a pattern, and wherein said LED lights contained within each of said sets of LED light assemblies are of the same color, said LED lights being of different colors between said sets of LED light assemblies;

a dichroic bandpass filter located between said sets of LED light assemblies;

a dichroic notch filter located between said sets of LED light assemblies intersecting said dichroic bandpass filter;

a power driver connected to each of said sets of LED light assemblies; and

a microcontroller connected to said power driver.

[The LED light apparatus for producing a collinear beam of white or colored light of Claim 1 wherein said geometric pattern is an a x a pattern.]

10. (Currently amended) An LED light apparatus for producing a collinear beam of white or colored light comprising:

a housing;

at least three sets of LED light assemblies contained within said housing, wherein each of said sets of LED light assemblies is comprised of a plurality of LED lights, said LED lights being arranged in a geometric a x b pattern, and wherein said LED lights contained within each of said sets of LED light assemblies are of the same color, said LED lights being of different colors between said sets of LED light assemblies;

a dichroic bandpass filter located between said sets of LED light assemblies;

a dichroic notch filter located between said sets of LED light assemblies intersecting said dichroic bandpass filter;

a power driver connected to each of said sets of LED light assemblies; and

a microcontroller connected to said power driver.

[The LED light apparatus for producing a collinear beam of white or colored light of Claim 1 wherein said geometric pattern is an a x b pattern.]

11. (Currently amended) An LED light apparatus for producing a collinear beam of white or colored light comprising:

a housing;

at least three sets of LED light assemblies contained within said housing, wherein each of said sets of LED light assemblies is comprised of a plurality of LED lights, said LED lights being arranged in a honeycomb pattern, and wherein said LED lights contained within each of said sets

of LED light assemblies are of the same color, said LED lights being of different colors between said sets of LED light assemblies;

a dichroic bandpass filter located between said sets of LED light assemblies;

a dichroic notch filter located between said sets of LED light assemblies intersecting said dichroic bandpass filter;

a power driver connected to each of said sets of LED light assemblies; and

a microcontroller connected to said power driver.

[The LED light apparatus for producing a collinear beam of white or colored light of Claim 1 wherein said geometric pattern is a honeycomb pattern.]

12. (Currently amended) An LED light apparatus for producing a collinear beam of white or colored light comprising:

a housing;

at least three sets of LED light assemblies contained within said housing, wherein each of said sets of LED light assemblies is comprised of a plurality of LED lights, said LED lights being arranged in a hexagon pattern, and wherein said LED lights contained within each of said sets of LED light assemblies are of the same color, said LED lights being of different colors between said sets of LED light assemblies;

a dichroic bandpass filter located between said sets of LED light assemblies;

a dichroic notch filter located between said sets of LED light assemblies intersecting said dichroic bandpass filter;

a power driver connected to each of said sets of LED light assemblies; and

a microcontroller connected to said power driver.

[The LED light apparatus for producing a collinear beam of white or colored light of Claim 1

wherein said geometric pattern is a hexagon pattern.]

13. (Currently amended) An LED light apparatus for producing a collinear beam of white or colored light comprising:

a housing;

at least three sets of LED light assemblies contained within said housing, wherein each of said sets of LED light assemblies is comprised of a plurality of LED lights, said LED lights being arranged in a geometric pattern, and wherein said LED lights contained within each of said sets of LED light assemblies are of the same color, said LED lights being of different colors between said sets of LED light assemblies;

a dichroic bandpass filter located between said sets of LED light assemblies;

a dichroic notch filter located between said sets of LED light assemblies intersecting said dichroic bandpass filter and wherein said dichroic bandpass filter and said dichroic notch filter intersect to form an x-pattern;

a power driver connected to each of said sets of LED light assemblies; and

a microcontroller connected to said power driver.

[The LED light apparatus for producing a collinear beam of white or colored light of Claim 1 wherein said dichroic bandpass filter and said dichroic notch filter intersect to form an x-pattern.]

14. (Cancelled) A method of producing a collinear beam of white or colored light comprising the steps of:

Emitting a first set of light rays from a first LED light assembly;

Striking said first set of light rays against a first side of a dichroic bandpass filter;

Passing said first set of light rays through said dichroic bandpass filter;

Emitting a second set of light rays from a second LED light assembly;

Reflecting said second set of light rays against a second side of said dichroic bandpass filter;

Combining said first set of light rays with said second set of light rays to form a combined light stream;

Passing said combined light stream through a first side of a dichroic notch filter;

Emitting a third set of light rays from a third LED light assembly;

Reflecting said third set of light rays against a second side of said dichroic notch filter;

and

Combining said third set of light rays with said combined light stream to form a collinear beam of white or colored light.

15. (Currently amended) A method of producing a collinear beam of white or colored light comprising the steps of:

emitting a first set of light rays from a first LED light assembly;

striking said first set of light rays against a first side of a dichroic bandpass filter;

passing said first set of light rays through said dichroic bandpass filter;

emitting a second set of light rays from a second LED light assembly;

reflecting said second set of light rays against a second side of said dichroic bandpass filter;

combining said first set of light rays with said second set of light rays to form a combined light stream;

passing said combined light stream through a first side of a dichroic notch filter;

emitting a third set of light rays from a third LED light assembly wherein said first LED light

assembly, said second LED light assembly, and said third LED light assembly are comprised of a

plurality of LED lights, said LED lights being arranged in a geometric pattern;

reflecting said third set of light rays against a second side of said dichroic notch filter; and
combining said third set of light rays with said combined light stream to form a collinear beam of
white or colored light.

[The method of producing a collinear beam of white or colored light of Claim 14 wherein said first LED light assembly, said second LED light assembly, and said third LED light assembly are comprised of a plurality of LED lights, said LED lights being arranged in a geometric pattern.]

16. (Previously presented) The method of producing a collinear beam of white or colored light of Claim 15 wherein said geometric pattern is an a x a pattern.

17. (Previously presented) The method of producing a collinear beam of white or colored light of Claim 15 wherein said geometric pattern is an a x b pattern.

18. (Previously presented) The method of producing a collinear beam of white or colored light of Claim 15 wherein said geometric pattern is a honeycomb pattern.

19. (Previously presented) The method of producing a collinear beam of white or colored light of Claim 15 wherein said geometric pattern is a hexagon pattern.

20. (Currently amended) The method of producing a collinear beam of white or colored light of Claim [14] 15 wherein said dichroic bandpass filter and said dichroic notch filter intersect to form an x-pattern.

21. (Currently amended) The method of producing a collinear beam of white or colored light of Claim [14] 15 wherein said first LED light assembly contains LED lights of red forming a red LED light assembly.

22. (Previously presented) The method of producing a collinear beam of white or colored light of Claim 21 wherein said second LED light assembly contains LED lights of blue forming a blue LED light assembly.

23. (Previously presented) The method of producing a collinear beam of white or colored light of Claim 22 wherein said third LED light assembly contains LED lights of green forming a green LED light assembly.

24. (Currently amended) The method of producing a collinear beam of white or colored light of Claim [23] 22 wherein said blue LED light assembly is arranged at right angles to said red LED light assembly.

25. (Currently amended) The method of producing a collinear beam of white or colored light of Claim [24] 23 wherein said green LED light assembly is arranged at right angles to said red LED light assembly.

26. (Currently amended) The method of producing a collinear beam of white or colored light of Claim [25] 15 wherein said dichroic bandpass filter is at a 90 degree angle with said dichroic notch filter.

27. (Currently amended) The method of producing a collinear beam of white or colored light of Claim [26] 23 wherein said green LED light assembly and said blue LED light assembly are placed on opposing sides of each other.

28. (Cancelled) A method of producing a collinear beam of white or colored light comprising the steps of:

Emitting red light rays from a red LED light assembly;

Striking said red light rays against a first side of a dichroic bandpass filter;

Passing said red light rays through said dichroic bandpass filter;

Emitting blue light rays from a blue LED light assembly;

Reflecting said blue light rays against a second side of said dichroic bandpass filter;

Combining said red light rays with said blue light rays to form a combined light stream;

Passing said combined light stream through a first side of a dichroic notch filter;
Emitting green light rays from a green LED light assembly;
Reflecting said green light rays against a second side of said dichroic notch filter; and
Combining said green light rays with said combined light stream to form a collinear beam of white or colored light.

29. (Currently amended) A method of producing a collinear beam of white or colored light comprising the steps of:

emitting [Emitting] a first set of light rays at a 90 degree angle from a first LED light assembly;

striking [Striking] said first set of light rays at a 45 degree angle to said dichroic bandpass filter against a first side of a dichroic bandpass filter;

passing [Passing] said first set of light rays through said dichroic bandpass filter;

emitting [Emitting] a second set of light rays from a second LED light assembly;

reflecting [Reflecting] said second set of light rays at a 45 degree angle to said dichroic bandpass filter against a second side of said dichroic bandpass filter;

combining [Combining] said first set of light rays with said second set of light rays to form a combined light stream;

passing [Passing] said combined light stream through a first side of a dichroic notch filter;

emitting [Emitting] a third set of light rays from a third LED light assembly;

reflecting [Reflecting] said third set of light rays at a 45 degree angle to said dichroic notch filter against a second side of said dichroic notch filter; and

combining [Combining] said third set of light rays with said combined light stream to form a collinear beam of white or colored light.